UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
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January 20, 2011

Mr. John T. Carlin, Vice President
R.E. Ginna Nuclear Power Plant, LLC
Constellation Energy Nuclear Group, LLC
1503 Lake Road
Ontario, New York 14519

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 05000244/2010005

Dear Mr. Carlin:

On December 31, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your R.E. Ginna Nuclear Power Plant. The enclosed integrated inspection report documents the inspection results, which were discussed on January 18, 2011, with Mr. Eric Larson and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

Gordon Hunegs, Acting Chief
Projects Branch 1
Division of Reactor Projects

Docket No. 50-244
License No. DPR-18

Enclosure: Inspection Report No. 05000244/2010005
w/ Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

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Enclosure

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-244
License No.:	DPR-18
Report No.:	05000244/2010005
Licensee:	Constellation Energy Nuclear Group, LLC
Facility:	R.E. Ginna Nuclear Power Plant, LLC
Location:	Ontario, New York
Dates:	October 1, 2010, through December 31, 2010
Inspectors:	G. Hunegs, Senior Resident Inspector L. Casey, Resident Inspector M. Modes, Senior Reactor Inspector P. Presby, Senior Operations Engineer
Approved by:	Gordon K. Hunegs, Acting Chief Projects Branch 1 Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

SUMMARY OF FINDINGS 3

REPORT DETAILS 4

1. REACTOR SAFETY 4
- 1R01 Adverse Weather Protection 4
- 1R04 Equipment Alignment 5
- 1R05 Fire Protection 6
- 1R06 Flood Protection Measures 6
- 1R11 Licensed Operator Requalification Program 7
- 1R12 Maintenance Effectiveness 8
- 1R13 Maintenance Risk Assessments and Emergent Work Control 9
- 1R15 Operability Evaluations 10
- 1R18 Plant Modifications 10
- 1R19 Post-Maintenance Testing 11
- 1R22 Surveillance Testing 12
- 1EP6 Drill Evaluation 13

4. OTHER ACTIVITIES 13
- 4OA1 Performance Indicator Verification 13
- 4OA2 Problem Identification and Resolution 14
- 4OA6 Meetings, Including Exit 16

ATTACHMENT: SUPPLEMENTAL INFORMATION 16

KEY POINTS OF CONTACT A-1

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED A-1

LIST OF DOCUMENTS REVIEWED A-1

LIST OF ACRONYMS A-7

SUMMARY OF FINDINGS

IR 05000244/2010005; 10/01/2010 – 12/31/2010; R.E. Ginna Nuclear Power Plant, LLC (Ginna), Routine Integrated Inspection Report.

The report covered a three-month period of inspection by resident inspectors and region-based inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

No findings were identified.

REPORT DETAILS

Summary of Plant Status

R.E. Ginna Nuclear Power Plant (Ginna) began the inspection period operating at full rated thermal power and operated at full power for the entire period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – Two samples)

.1 Cold Weather Preparations

a. Inspection Scope

The inspectors performed a review of the cold weather preparation program and implementing procedures at Ginna before the arrival of sustained periods of cold weather. The review assessed the effectiveness of Ginna's cold weather readiness program to ensure systems would remain functional and available during cold weather conditions as specified by technical specifications (TSs). The inspectors conducted discussions with control room operators to understand protective measures applicable to these systems. The inspectors performed field walkdowns of the systems per Ginna procedure O-22, "Cold Weather Walkdown Procedure," Revision 00601, to evaluate the material condition and functionality of the freeze protection equipment (e.g., heat tracing, instrumentation, and ventilation).

b. Findings

No findings were identified.

.2 Imminent Adverse Weather

a. Inspection Scope

On November 17, 2010, the National Weather Service issued a wind advisory with expected wind gusts up to 50 miles per hour. Operators entered ER-SC.1, "Adverse Weather Plan," Revision 01700, due to the adverse weather condition. The inspectors observed operator actions that were associated with the procedure and toured areas of the plant that could be adversely affected by high wind conditions. Areas of focus included the intake structure and station transformers.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdown (71111.04Q – Three samples)

a. Inspection Scope

The inspectors reviewed the alignment of system valves and electrical breakers to ensure proper in-service or standby configurations as described in plant procedures, piping and instrument drawings (P&IDs), and the updated final safety analysis report (UFSAR). During the walkdown, the inspectors evaluated the material condition and general housekeeping of the system and adjacent spaces. The inspectors also verified that operators were following plant TSs and system operating procedures. The inspectors performed a partial walkdown of the following systems:

- The electrical lineup for offsite power system circuit 7T when offsite power system 767 was out of service (OOS) for planned maintenance;
- The 'A' emergency diesel generator (EDG) when the 'B' EDG was OOS for planned maintenance; and
- The 'A' train of the motor-driven auxiliary feedwater (MDAFW) system when the 'B' train of MDAFW was OOS for planned maintenance.

b. Findings

No findings were identified.

.2 Complete Walkdown (71111.04S – One sample)

a. Inspection Scope

The inspectors performed a detailed walkdown of the spent fuel pool (SFP) cooling system to identify any discrepancies between the existing equipment lineup and the specified lineup. The SFP cooling system was chosen because of its risk-significant function to remove decay heat from spent fuel assemblies. The inspectors verified proper system alignment as specified by TSs, UFSAR, plant procedures, and P&IDs. Documentation associated with open maintenance requests and design issues were reviewed and included items tracked by plant engineering to assess their collective impact on system operation. In addition, the inspectors reviewed the associated corrective action database to verify that any equipment alignment problems were being identified and appropriately resolved.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Inspection (71111.05Q – Five samples)

a. Inspection Scope

The inspectors performed walkdowns of fire areas to determine if there was adequate control of transient combustibles and ignition sources. The material condition of fire protection systems, equipment and features, and the material condition of fire barriers were inspected against Ginna's licensing basis and industry standards. In addition, the passive fire protection features were inspected including the ventilation system fire dampers, structural steel fire proofing, and electrical penetration seals. The following plant areas were inspected:

- Turbine Building Basement (Fire Zone TB-1);
- Intermediate Building Clean Side Basement (Fire Zone IBN-1);
- Intermediate Building Main Steam Header Floor (Fire Zone IBN-2);
- Intermediate Building Clean Side Fan Floor (Fire Zone IBN-3); and
- Intermediate Building Clean Side Top Floor (Fire Zone IBN-4).

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06)

.1 Internal Flooding (71111.06 – One Sample)

a. Inspection Scope

The inspectors evaluated Ginna's internal flood protection measures for the intermediate building to verify that Ginna had implemented appropriate measures to reduce the possibility that this area could be damaged by internal flooding. This area was selected given its risk significance to internal flooding events as outlined in Ginna's probabilistic risk assessment (PRA). To perform this evaluation, the inspectors reviewed the UFSAR, integrated plant safety assessment, condition reports (CRs), plant change records, and various flooding analyses for equipment located in the areas of the concern. During the field walkdown, to the extent practicable, the condition of flood mitigation equipment was examined by inspectors.

b. Findings

No findings were identified.

.2 Annual Review of Cables Located in Underground Bunkers/Manholes (71111.06 – One Sample)

a. Inspection Scope

On October 21, 2010, Ginna performed an inspection of cables located in manholes under work order (WO) C91028373 using procedure CNG-AM-1.01-1029, "Medium Voltage Cable Program," Revision 0000. The Inspectors viewed manholes number two, three, three east, and three west which contained offsite power circuits. The inspectors noted that the offsite power cables had previously been submerged and that Ginna had implemented a preventive maintenance (PM) program to pump out water that accumulated in the manholes. The inspectors verified by direct observation that the cables were not submerged in water. The inspectors observed that the offsite power supply splice in manhole number two appeared to be intact and that degraded or missing cable supports did not impact cable integrity.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

.1 Resident Inspector Quarterly Review (71111.11Q – One sample)

a. Inspection Scope

On November 3, 2010, the inspectors observed licensed operator simulator scenarios, E2ECA21-03, Revision 03, and E3ECA33-01, Revision 03. The inspectors reviewed the critical tasks associated with the scenarios, observed the operators' performances, and observed the post-evaluation critiques. The inspectors also reviewed and verified compliance with Ginna procedure OTG-2.2, "Simulator Examination Instructions," Revision 43.

b. Findings

No findings were identified.

.2 Biennial Review (71111.11B – One sample)

a. Inspection Scope

The following inspection activities were performed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Inspection Procedure (IP) 71111.11, "Licensed Operator Requalification Program," Appendix A, "Checklist for Evaluating Facility Testing Material," and Appendix B, "Suggested Interview Topics." The inspectors reviewed documentation of operating history since the last requalification program inspection. Documents reviewed included NRC inspection reports, licensee event reports, Ginna's corrective action program (CAP) documents, and the most recent

NRC plant issues matrix. The inspectors also reviewed specific events from Ginna's CAP that involved human performance issues for licensed operators to ensure that operational events were not indicative of possible training deficiencies. The operating tests for weeks one, two, and three of the exam cycle were reviewed for quality and performance.

On December 12, 2010, the results of the annual operating tests for the year 2010 were reviewed to determine if pass fail rates were consistent with the guidance of NUREG-1021 and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process." The inspectors verified that:

- Crew pass rates were greater than 80 percent (pass rate was 85.7 percent);
- Individual pass rates on the dynamic simulator test were greater than 80 percent (pass rate was 100 percent); and
- Individual pass rates on the job performance measures of the operating exam were greater than 80 percent (pass rate was 100 percent).

Observations were made of the dynamic simulator exams and job performance measures (JPMs) administered during the week of November 8, 2010. These observations included facility evaluations of crew and individual performance during the dynamic simulator exams and individual performance of five JPMs. Remediation plans for 14 crew/individual exam failures were reviewed to assess the effectiveness of the remedial training. A license activation was reviewed to ensure that license conditions and applicable program requirements were met. Operators, instructors, and training/operations management were interviewed for feedback on their training program and the quality of training received. Simulator performance and fidelity were reviewed for conformance to the reference plant control room. A sample of records for requalification training attendance, program feedback, reporting, and medical reports were reviewed for compliance with license conditions, including NRC regulations.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q – Two samples)

a. Inspection Scope

The inspectors evaluated work practices and follow-up corrective actions for selected systems, structures, and components (SSCs) for maintenance effectiveness. The inspectors reviewed the performance history of those SSCs and assessed extent-of-condition determinations for those issues with potential common cause or generic implications to evaluate the adequacy of corrective actions. The inspectors reviewed Ginna's problem identification and resolution actions for these issues to evaluate whether Ginna had appropriately monitored, evaluated, and dispositioned the issues in accordance with procedures and the requirements of 10 CFR Part 50.65, "Requirements for Monitoring the Effectiveness of Maintenance." In addition, the inspectors reviewed

selected SSC classifications, performance criteria, goals, and corrective actions that were taken or planned to verify whether the actions were reasonable and appropriate. The following issues/systems were reviewed:

- SFP cooling system; and
- Repetitive set point drift on temperature module 404B as documented in CRs 2010-5276, 2010-5304, 2010-5459, 2010-5538, and 2010-5741. Temperature module 404B is an input into the over temperature delta 'T' reactor trip in the reactor protection system (RPS).

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – Four samples)

a. Inspection Scope

The inspectors evaluated the effectiveness of Ginna's maintenance risk assessments required by 10 CFR Part 50.65(a)(4). The inspectors discussed the use of Ginna's online risk monitoring software with control room operators and scheduling department personnel. The inspectors reviewed equipment tracking documentation and daily work schedules, and performed plant tours to verify that actual plant configuration matched the assessed configuration. Additionally, the inspectors verified that risk management actions, for both planned and emergent work, were consistent with those described in CNG-OP-4.01-1000, "Integrated Risk Management," Revision 00601.

Risk assessments for the following OOS SSCs were reviewed:

- Planned maintenance and testing of the turbine-driven auxiliary feedwater (TDAFW) pump and the 'B' component cooling water (CCW) pump while circuit 767 was OOS (October 25, 2010);
- Emergent work on the 'B' MDAFW pump during scheduled maintenance on the 'A' MDAFW pump and bus 18 (November 5, 2010);
- Planned maintenance and testing on the 'B' EDG and pressure transmitter 420 reactor coolant system (RCS) pressure loop 420 (week of November 8, 2010); and
- Planned maintenance and testing on the TDAFW system and the 'A' EDG (week of November 29, 2010).

b. Findings

No findings were identified.

1R15 Operability Evaluations (71111.15 – Five samples)

a. Inspection Scope

The inspectors reviewed operability evaluations and/or CRs in order to verify that the identified conditions did not adversely affect safety system operability or plant safety. The evaluations were reviewed using criteria specified in NRC Regulatory Issue Summary 2005-20, "Revision to Guidance formerly contained in NRC Generic Letter (GL) 91-18, Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability," and Inspection Manual Part 9900, "Operability Determinations and Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety." In addition, where a component was inoperable, the inspectors verified the TS limiting condition for operation implications were properly addressed.

The inspectors performed field walkdowns, interviewed personnel, and reviewed the following items:

- CR 2010-5103, Submerged Cables Found During Inspection of Manholes;
- CR 2010-6857, Degraded Cable Supports Found in Off-Site Power Manhole;
- CR 2010-3208, Boric Acid Residue and Corrosion Found in Containment Recirculation Fan Chiller Enclosures;
- CR 2010-5660, Crack Discovered in Containment Concrete Exceeding Reporting Criteria; and
- CR 2010-6141, Condensate Storage Tank (CST) Water Volume Contained in TS 3.7.6 May Be Non-Conservative.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

.1 Temporary Modification – (71111.18 – One sample)

a. Inspection Scope

The inspectors reviewed engineering change package (ECP) 10-000687, "Routing the Discharge Path from 'B' SFP Heat Exchanger (HX) Directly to the SFP." The ECP consisted of establishing a temporary path by cutting the piping on the discharge side of the 'B' SFP HX, welding a new flange to the pipe cut, and attaching a temporary hose section from the flange to the SFP. The inspectors reviewed the ECP to ensure that the replacement components were consistent with design basis and were compatible with installed SSCs. The inspectors observed actions taken by personnel to complete the modification and test the resultant configuration.

b. Findings

No findings were identified.

.2 Permanent Modifications (71111.18 – Two samples)

a. Inspection Scope

The inspectors reviewed ECP 2009-0208, "TDAFW Governor Control Valve (CV) 9519E Replacement with Enhanced Materials," Revision 0. The ECP consisted of replacing the TDAFW governor CV with a new valve assembly made of materials less susceptible to corrosion. The inspectors reviewed the ECP to determine whether the permanent change adversely affected system availability or a function important to plant safety. The inspectors reviewed the associated system design bases to ensure that the replacement components were consistent with design bases and were compatible with installed SSCs. The inspectors observed actions taken by personnel to complete the modification and test the resultant configuration.

The inspectors reviewed ECP 2009-0251, "Install New Circuit Breaker and Contactor for Control Room Emergency Air Treatment System (CREATS) 'A' Fan," Revision 1. The ECP consisted of replacing the CREATS 'A' fan supply breaker with a larger capacity breaker to increase the margin between the maximum motor starting current and the trip point of the circuit breaker. The inspectors reviewed the ECP to determine whether the permanent change adversely affected system availability or a function important to plant safety. The inspectors reviewed the associated system design bases to ensure that the replacement components were consistent with design bases and were compatible with installed SSCs. The inspectors observed actions taken by personnel to complete the modification and test the resultant configuration.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – Six samples)

a. Inspection Scope

The inspectors observed portions of post-maintenance testing (PMT) activities in the field to determine whether the tests were performed in accordance with approved procedures. The inspectors assessed each test's adequacy by comparing the test methodology to the scope of maintenance performed. In addition, the inspectors evaluated the test acceptance criteria to verify that the tested components satisfied the applicable design and licensing bases and TS requirements. The inspectors reviewed the recorded test data to determine whether the acceptance criteria were satisfied.

The following PMT activities were reviewed:

- STP-O-31A, "Charging Pump 'A' Inservice Test (IST)," Rev. 00401, STP-O-31B, "Charging Pump 'B' IST," Rev. 00501, and STP-O-31C, "Charging Pump 'C' IST," Rev. 00301, to test the charging pumps following maintenance under WO C91019394, "Replace 'B' Charging Pump Discharge Relief Valve 284," (October 12, 2010);
- STP-O-16QB, "AFW Pump 'B' – Quarterly," Rev. 0, to test the 'B' MDAFW pump recirculation air-operated valve 4310B following maintenance performed under WO C91056203, "Significant Air Leakage from Swage Lock Fitting Upstream Valve 4310B," (November 5, 2010);
- STP-O-12.1QC, "Safety Injection (SI) Pump 'C' IST," Rev. 00300, to test the 'C' SI pump supply breaker following maintenance performed under WO C90830160, "PM Inspection on Breaker 52/SIP1C2, SI Pump 'C' Motor Supply from Bus 14," (November 5, 2010);
- STP-O-12.2, "EDG 'B'," Rev. 00800, following maintenance performed under WO C90866162, "Perform Routine PM and Inspection on D/G1B," (November 12, 2010);
- STP-O-13, "Fire Pump Operation and System Alignment," Rev. 00005, to test the diesel fire pump after maintenance performed under WO C90818614, "Perform Inspection and Maintenance on the Diesel Fire Pump," (November 23, 2010); and
- STP-O-16-COMP-T, "AFW Turbine Pump – Comprehensive Test," Rev. 01400, to test the TDAFW system following maintenance performed under WO C90694245, "Replace TDAFW Governor CV 9519E Per ECP 2009-0208," (December 1, 2010).

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – Five samples)

a. Inspection Scope

The inspectors observed the performance and/or reviewed test data for the following surveillance tests that are associated with selected risk-significant SSCs to verify that TSs were followed and that acceptance criteria were properly specified. The inspectors also verified that proper test conditions were established as specified in the procedures, no equipment preconditioning activities occurred, and acceptance criteria were met.

- STP-O-16-COMP-T, "AFW Turbine Pump – Comprehensive Test," Rev. 01300 (October 25, 2010);
- STP-O-2.8Q, "CCW Pump Quarterly Test," Rev. 00501 (October 25, 2010);
- S-12.4, "RCS Leakage Surveillance Record Instructions," Rev. 05401 (November 1, 2010);
- STP-O-12.6A, "Diesel Generator Fuel Oil Transfer Pump 'A' Test," Rev. 0400 (November 6, 2010); and
- STP-O-16QA, "AFW Pump 'A' – Quarterly," Rev. 00500 (November 6, 2010).

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06 – One sample)

a. Inspection Scope

On October 26, 2010, the inspectors observed portions of a scheduled drill, number GIN-EP-ID-10-10, of Ginna's emergency preparedness organization. Following the drill, the inspectors observed the post-drill critique and assessment of the technical support center (TSC) performance during the drill. The drill scenario included an earthquake, flooding, loss of coolant accident, and containment failure. The inspectors verified that emergency classification declarations and notifications were completed in accordance with 10 CFR Part 50.72, 10 CFR Part 50 Appendix E, and emergency plan implementing procedures. The inspectors verified that the TSC post-drill critique was thorough and drill enhancements were identified in Ginna's CAP.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

Cornerstone: Mitigating Systems (71151 – Two samples)

a. Inspection Scope

The inspectors completed a review of mitigating systems performance index (MSPI) data including a review of Ginna's train/system unavailability data, monitored component demands, and demand failure data. As part of this review, Ginna's MSPI basis document, "Ginna Nuclear Power Plant MSPI Basis Document," Revision 5, and Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator (PI) Guideline," Revision 6, were examined. To verify the accuracy of the data, the inspectors reviewed monthly operating reports, NRC inspection reports, and Ginna event reports from August 2009 to December 2010. The inspectors also reviewed OOS logs, operating logs, and maintenance rule information to determine the accuracy and completeness of the reported unavailability data. For the selected systems, a review of maintenance and test history confirmed the accuracy of demand failure data for the identified active components for the most recent 12 quarters. The MSPIs reviewed included:

- RHR System; and
- Cooling Water Systems (CCW and service water (SW) systems).

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152)

.1 Continuous Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As specified by IP 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into Ginna's CAP. This review was accomplished by reviewing electronic copies of CRs, periodic attendance at daily screening meetings, and accessing Ginna's computerized database.

b. Findings

No findings were identified.

.2 Semi-Annual Review (71152 – One sample)

a. Inspection Scope

The inspectors performed a semi-annual review of site issues to identify trends that might indicate the existence of more significant safety issues as required by IP 71152. The inspectors included in this review repetitive or closely related issues that may have been documented by Ginna outside of the CAP such as trend reports, PIs, major equipment problem lists, system health reports, maintenance rule assessments, and maintenance or CAP backlogs. The inspectors also reviewed Ginna's CAP database for the period of June through December 2010 to assess CRs written in various subject areas (equipment problems, human performance issues, etc.) as well as individual issues identified during the NRC daily CR review. The inspectors reviewed Ginna's quality and performance assessment report for the period of May 1 through August 31, 2010, performed under CNG-QL-1.01-1008, "Quarterly Report Process," Revision 00200, to verify that Ginna personnel were appropriately evaluating and trending adverse conditions in accordance with applicable procedures.

b. Findings and Observations

No findings were identified. No trends were noted that indicated a potential safety significant issue. The inspectors verified that Ginna appropriately identified trends and captured them in the CAP, performance monitoring program, system health reports, and quality assurance assessments. Examples of trends identified by Ginna were trends in

the areas of configuration control, and procedure use and adherence. The inspectors also identified an increase in the number of CRs related to turbine generator vibrations, risk assessment, and emergency lighting. Ginna documented these apparent trends in their CAP under CRs 2010-0109, 2010-0111, and 2010-0114.

.3 Annual Sample: Increase in SFP Leak Rate (71152 – One sample)

a. Inspection Scope

Ginna has experienced relatively stable SFP leakage since 2006. The leakage rate has been partially mitigated by vacuum boxes that have been installed over known SFP liner cracks. CR 2010-5887, "SFP Leak-Off Rate Increased," identified that on September 26, 2010, the SFP under liner leakage collection system leak rate increased from approximately 380 to 880 milliliters per minute. The inspectors assessed Ginna's problem identification threshold, cause analyses, functionality determination, and the prioritization and timeliness of corrective actions to determine whether Ginna was appropriately identifying, characterizing, and correcting problems associated with SFP liner leakage.

b. Findings and Observations

No findings were identified. Ginna appropriately implemented their corrective action process regarding the increase noted in SFP liner leakage. Elements of the corrective actions were detailed and thorough. Interim corrective actions were appropriate to identify potential groundwater contamination. Long-term corrective actions include permanent liner repairs scheduled for 2011. The inspectors confirmed that Ginna was adequately monitoring and trending relevant parameters including calcium and iron concentration in the leakage so that worsening conditions could be evaluated.

.4 Annual Sample: Assessment of Corrective Actions Associated with Inadequate Water Management (71152 – One Sample)

a. Inspection Scope

The inspectors reviewed the corrective actions associated with CR 2010-3155, which described inadequate station water management and the use of a standby station water management (CNC - Chemical Nuclear Cleanup) system, to determine if the documentation was complete and accurate and entered in a timely manner. The corrective actions were reviewed for the evaluation and disposition of operability and reportability, consideration of extent of condition and cause, generic implications, common cause, and previous occurrences. The corrective actions were further reviewed to determine if the classification and prioritization of the problem's resolution was commensurate with its safety significance.

The inspectors reviewed various related documents and interviewed station personnel involved in station water management. The derived information was compared with the corrective actions' identification of root and contributing causes of the problem. The comparison focused on the identification of the significant condition adverse to quality,

the cause of the condition, and the corrective actions taken. The inspectors verified that the documented information was reported to the appropriate level of management. The inspectors reviewed the corrective actions to verify the actions were appropriately focused, that the corrective actions taken would preclude repetition, and that corrective actions were completed in a timely manner commensurate with the safety significance of the issue. In addition, the inspectors compared the corrective actions against related negative trends associated with human or equipment performance to determine if the corrective actions could potentially impact nuclear safety. Finally, the inspector reviewed operating experience to verify that it was adequately evaluated for applicability, and applicable lessons learned were communicated to appropriate organizations and implemented.

b. Findings and Observations

No findings were identified. Ginna appropriately implemented their corrective action process. The cause and corrective actions that were developed were detailed and thorough.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On January 18, 2011, the resident inspectors presented the inspection results to Mr. Eric Larson and other members of his staff, who acknowledged the findings. The inspectors verified that none of the material examined during the inspection is considered proprietary in nature.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Carlin	Vice President, Ginna
J. Bowers	General Supervisor, Radiation Protection
T. Hedges	Director, Emergency Preparedness
E. Larson	Plant General Manager
K. McLaughlin	General Supervisor, Shift Operations
T. Paglia	Manager, Integrated Work Management
S. Snowden	General Supervisor, Chemistry
J. Sullivan	Manager, Operations
P. Swift	Manager, Engineering Services

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None.

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Document
UFSAR

Procedures
ER-SC.1, Adverse Weather Plan, Rev. 01700
O-22, Cold Weather Walkdown Procedure, Rev. 00601

Section 1R04: Equipment Alignment

Documents
Engineer Work Request 1594B, SFP Cooling
UFSAR

Procedure
AR-K-29, SFP Hi Temp 115 Degrees Fahrenheit Hi-Lo Level, Rev. 013

Drawings
33013-1248, SFP Cooling, Rev. 036
33013-2539, Air Conditioning System Plant Load Distribution, Rev. 021
33013-1237, AFW P&ID, Rev. 57

Condition Reports
2010-6775
2010-6722

Section 1R05: Fire Protection

Document
Ginna Fire Protection Plan, Rev. 5

Procedures
FRP-11.0, Intermediate Building Clean Side Basement, Rev. 00904
FRP-12.0, Intermediate Building Main Steam Header Floor, Rev. 00702
FRP-13.0, Intermediate Building Clean Side Fan Floor, Rev. 00802
FRP-14.0, Intermediate Building Clean Side Top Floor, Rev. 00802
FRP-21.0, Turbine Building Basement, Rev. 01100

Drawings
33013-2545, Fire Response Plan Intermediate Building Operating Floor El. 253' 3", Rev. 9
33013-2551, Fire Response Plan Intermediate Building Operating Floor El. 278' 4" & 274' 6", Rev. 7
33013-2544, Fire Response Plan Turbine Building Basement Floor El. 253' 6", Rev. 11

Section 1R06: Flood Protection Measures

Documents
G1-1F-001, Ginna PRA Internal Flooding Analysis Notebook
Double Seal Cable Applications Catalog
Kerite Distribution Cable Catalog, Number Prefix 125C35
May 2010 Report on ECAD Testing at Ginna
NRC GL 2007-001, Inaccessible or Underground Power Cable Failures That Disable Accident Mitigation Systems or Cause Plant Transients
Ginna Response to GL 2007-001, Dated May 7, 2007

Procedure
CNG-AM-1.01-1029, Medium Voltage Cable Program, Rev. 0000

Drawing
33013-1920, Chilled Water System P&ID, Rev. 012

Work Orders
C20807437
C91028373

Section 1R11: Licensed Operator Requalification Program

Document
2010 Biennial Exam (Cycle 10-7) Simulator vs. Plant Differences, Dated November 2, 2010

Procedures
CNG-MD-1.01-3001, Physical Examination Process for NRC Licensed Operators and Licensed Candidates, Rev. 0
ECA-0.0, Loss of All Air Conditioning Power, Rev. 03402
OTG-2.2, Simulator Examination Instructions, Rev. 43
OTG-10.0, License Activation, Rev. 4

Simulator Discrepancy Reports
2007-132, TDAFW Pump Suction Break MALF has Little Effect
2008-128, Alarm G-8, 4 Kilovolt (kV) Motor Overload
2008-147, Nuclear Instrumentation System Service Range Failure – No Audio Count Rate Change
2008-181, 'D' SW Pump Breaker Takes Approximately 6 Seconds to Close
2008-202, Boron Concentration Indicates High Following Loss-of-Coolant Accident (LOCA)
2008-207, RCS Boron Concentration Not Changing with Changes in Letdown Temp
2009-069, LT428 Deleted from Instrumentation and Control
2009-074, Reactor Coolant Drain Tank (RCDT) Level Lowers with no RCDT Pump Running and Excess Letdown Aligned
2009-075, No NaOH Flow Indicated with LOCA in Progress and 'B' Containment Spray Pump Running
2009-086, RCDT Level Lowers with no RCDT Pumps Running
2009-098, CST Level Rate of Rise Not Reflecting Mass In-Out
2009-100, R-19 Does Not Respond to a Steam Generator Tube Leak
2009-149, On Rx Trip and Transfer of 4 kV Busses to Offsite Power D/Gs Started
2009-170, Reactor Coolant Pump (RCP) Coast-Down Time
2009-194, Could Not Cool Down Below 506 Degrees Fahrenheit on Core Exit Thermocouple with Atmospheric Relief Valve
2009-224, TDAFW Pump Over Speed Malfunction
2009-230, Charging Line Leak CVC03

Simulator Testing
2009 Core Test
2009 Normal Operations Test 14.4.2 – Normal Ops Acceptance Test
2010 Malfunction Test 14.4.7.12.7 – RCP Locked Rotor
2010 Malfunction Test 14.4.7.15.2 – Dropped Rod
2010 Malfunction Test 14.4.7.18.5 – Accumulator Leak
2010 Transient Test 14.4.8.BE3 – Simultaneous Closure of Both Main Steam Isolation Valves
2010 Transient Test 14.4.8.BE4 – Simultaneous Trip of Both RCPs
2010 Transient Test 14.4.8.BE6 – Main Turbine Trip

Section 1R12: Maintenance Effectiveness

Documents
DA-EE-92-091-21, Instrument Loop Performance Evaluation and Setpoint Verification, Rev. 6
DA-EE-92-092-21, Instrument Loop Performance Evaluation and Setpoint Verification, Rev. 5
RPS System Health Report, 3rd Quarter 2010

Condition Reports
2010-6387
2010-1507
2010-6254

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedure
CNG-OP-4.01-1000, Integrated Risk Management, Rev. 00601

Section 1R15: Operability Evaluations

Procedure
STP-E-2.3.1Q, Containment Recirculation Fan Testing – Quarterly, Rev. 00001

Condition Reports
2010-3208
2010-5103
2010-5660
2010-6857

Section 1R18: Plant Modifications

Documents
ECP 10-000687, Routing Discharge Path from 'B' SFP HX Directly to the SFP
ECP 2009-0251, Install New Circuit Breaker and Contactor for CREATS 'A' Fan, Rev. 1
ECP 2009-0208, TDAFW Governor CV 9519E Replacement with Enhanced Materials, Rev. 0

Procedure
CNG-OP-4.01-1000, Integrated Risk Management, Rev. 00601

Work Order
C91002313

Section 1R19: Post-Maintenance Testing

Document
DA-ME-2001-031, Evaluation of Suppression System Flow and Pressure Requirements, Rev. 1

Procedures
STP-O-12.1QC, SI Pump 'C' IST, Rev. 00300
STP-O-12.2, EDG 'B', Rev. 00800
STP-O-13, Fire Pump Operation and System Alignment, Rev. 00005
STP-O-16-COMP-T, AFW Turbine Pump – Comprehensive Test, Rev. 01400
STP-O-16-QB, AFW Pump 'B' – Quarterly, Rev. 0
STP-O-31A, Charging Pump 'A' IST, Rev. 00401
STP-O-31B, Charging Pump 'B' IST, Rev. 00501
STP-O-31C, Charging Pump 'C' IST, Rev. 00301
M-15.1P, 'A' or 'B' EDG Fuel Oil System Inspection and Maintenance, Rev. 0700

Drawings
33013-1265, Chemical Volume Control System P&ID, Rev. 22, Sheet 2 of 2
33013-1989, Fire SW Plant Systems P&ID, Rev. 27

Condition Report
2010-7620

Work Orders
C91019394
C90866520
C91056203
C90830160
C90866162
C90818614
C90694245

Section 1R22: Surveillance Testing

Procedures
S-12.4, RCS Leakage Surveillance Record Instructions, Rev. 05401
STP-O-2.8Q, CCW Pump Quarterly Test, Rev. 00501
STP-O-12.6A, Diesel Generator Fuel Oil Transfer Pump 'A' Test, Rev. 0400
STP-O-16-COMP-T, AFW Turbine Pump – Comprehensive Test, Rev. 01300
STP-O-16QA, AFW Pump 'A' – Quarterly, Rev. 00500

Drawings
33013-1237, AFW P&ID, Rev. 57
33013-1245, CCW P&ID, Rev. 31
33013-1265, Chemical Volume Control System P&ID, Rev. 22, Sheet 2 of 2

Section 4OA1: Performance Indicator Verification

Documents
NEI 99-02, Regulatory Assessment PI Guideline, Rev. 6
Ginna Nuclear Power Plant MSPI Basis Document, Rev. 5

Section 4OA2: Problem Identification and Resolution

Documents
Apparent Cause Evaluation for CR 2006-1954, SFP Leakage
Ginna's Response to Industry Groundwater Protection Initiative Voluntary Data Collection Questionnaire, Dated July 2006
Operations Night Orders 07/29/10
Engineering Evaluation CA-2101-002184

Procedure
CNG-QL-1.01-1008, Quarterly Report Process, Rev. 00200
CNG-CA-1.01-1005, Attachment 1, Tier 1, Apparent Cause Evaluation Template, Rev. 00200
P-15.71, Service Water Processing Skid Operation, Rev. 00100
OPG- Water-Management, Water Management Guideline, Rev. 0
CNG-TR-1.01-1002, Training Analysis Phase Activities, Attachment 2, Performance/Needs Analysis Worksheet, Rev. 00100

Condition Reports

2006-1954	2010-6224	2010-3155	2009-8545
2009-9413	2010-0109	2010-3876	2010-2178
2010-2280	2009-2928	2010-2181	2010-0114
2010-3716	2010-0111	2010-2179	2010-5887
2009-6289	2009-6998	2009-7640	
2009-6358	2009-7057	2010-2381	

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
AFW	auxiliary feedwater
CAP	corrective action program
CCW	component cooling water
CFR	*Code of Federal Regulations*
CR	condition report
CREATS	control room emergency air treatment system
CST	condensate storage tank
CV	control valve
ECP	engineering change package
EDG	emergency diesel generator
Ginna	R. E. Ginna Nuclear Power Plant
GL	generic letter
HX	heat exchanger
IP	inspection procedure
IST	inservice test
JPM	Job Performance Measure
kV	kilovolt
LOCA	loss-of-coolant accident
MDAFW	motor-driven auxiliary feedwater
MSPI	mitigating systems performance index
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
OOS	out of service
P&ID	piping and instrument drawing
PARS	Publicly Available Records
PI	performance indicator
PM	preventive maintenance
PMT	post-maintenance testing
PRA	probabilistic risk assessment
RCDT	reactor coolant drain tank
RCP	reactor coolant pump
RCS	reactor coolant system
RPS	reactor protection system
SFP	spent fuel pool
SI	safety injection
SSC	system, structure, and component
SW	service water
TDAFW	turbine-driven auxiliary feedwater
TS	technical specification
TSC	technical support center
UFSAR	updated final safety analysis report
WO	work order

Attachment